BEFORE THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION OF THE STATE OF MONTANA

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APPLICATION TO CHANGE WATER RIGHT NO. 41S 30126463 BY THE TOWN OF STANFORD	**PRELIMINARY DETERMINATION TO GRANT CHANGE**

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On August 20, 2019, the Town of Stanford (Applicant) submitted Application to Change Water Right No. 41S 30126463 to change Statement of Claim Claim Nos. 41S 1400-00 and 41S 102000-00 to the Lewistown Regional Office of the Department of Natural Resources and Conservation (Department or DNRC). The Department published receipt of the Application on its website. The Department sent Applicant a deficiency letter under §85-2-302, Montana Code Annotated (MCA), dated January 6, 2020. The Applicant responded with information dated February 26, 2020. Additional information was provided by the Applicant on March 27 and April 6, 2020. The Application was determined to be correct and complete as of May 14, 2020. An Environmental Assessment for this Application was completed on June 4, 2020.

INFORMATION

The Department considered the following information submitted by the Applicant, which is contained in the administrative record.

Application as filed:

- Application to Change Water Right, Form 606
- Attachments
- Aerial map showing distribution system layout
- Printed copy of Form 633 for related Permit Application 41S 30126464

Information Received after Application Filed

- Deficiency response received February 26, 2020
- Additional information on change in purpose addendum and historical use received March 27, 2020
- Additional information on historical use received April 6, 2020

Information within the Department's Possession/Knowledge

- Department Depletion Report for associated Permit Application 41S 30126464

The Department has fully reviewed and considered the evidence and argument submitted in this Application and preliminarily determines the following pursuant to the Montana Water Use Act (Title 85, chapter 2, part 3, part 4, MCA).

WATER RIGHTS TO BE CHANGED

FINDINGS OF FACT

1. The Applicant is proposing to change Statements of Claim 41S 1400-00 and 41S 102000-00, which are for municipal use by the Town of Stanford. The development associated with these water rights divert water from a 1,030 foot deep well identified by the town as Artesian Well #1. This well is completed in what is known as the Kootenai Aquifer. The claimed elements of the water rights proposed for change can be found in Table 1.

Table 1. Town of Stanford water rights proposed for change.

WR Number	41S 1400-00	41S 102000-00
Purpose	Municipal	Municipal
Well ID (State assigned number per DEQ)	Artesian Well #1	Artesian Well #1
Flow Rate (GPM)	70	4
Volume (AF)	112.9	6.47
Period of Use	January 1-December 31	January 1-December 31
Point of Diversion	NENESE Sect 17, Twp 16N, Rge 12E, Judith Basin County	NENESE Sect 17, Twp 16N, Rge 12E, Judith Basin County
Place of Use	NESE, NENE, SWNE Sect 17, Twp 16N, Rge 12E, Judith Basin County NWNW, SWNW Sect 16, Twp 16N, Rge 12E, Judith Basin County	E2 Sect 17, Twp 16N, Rge 12E, Judith Basin County W2 Sect 16, Twp 16N, Rge 12E, Judith Basin County
Priority Date	8/31/1951	5/1/1952

2. The water rights proposed for change are supplemental to other water rights for wells completed in the Colorado Aquifer. Historically, the Town of Stanford has diverted water from multiple aquifers in an effort to keep up with demands by users. There are eight water rights held by the Town of Stanford for municipal use that are not part of this change. A list of these rights can be found in Table 2.

Table 2. Supplemental municipal water rights held by the Town of Stanford.

WR Number	WR Type	Well Name	Flow Rate (GPM)	Volume (AF)
41S 1022-00	Groundwater Certificate	North Park #4	14	No volume identified
41S 1398-00	Statement of Claim	Railroad #5	40	64.5
41S 1399-00	Statement of Claim	Well #9	70	112.9
41S 6024-00	Groundwater Certificate	Corley #6	30	No volume identified
41S 6025-00	Groundwater Certificate	SW Park #3	40	No volume identified
41S 23674-00	Groundwater Certificate	New Tower #7	35	24
41S 35928-00	Groundwater Certificate	Sundown #8	60	43
41S 102001-00	Statement of Claim	Well #10	13	21.02

3. Of this list, there are only two water rights (41S 1398-00 and 41S 1399-00) actively in use. The wells for these water rights are completed in the Colorado Aquifer and will continue to be used to supply water to the town. Statement of Claim 41S 23674-00 has the ability to be used, however water quality is exceedingly poor in this well and it is only brought online in emergencies or to flush the well out and is not anticipated to be used to supply water to the town in any meaningful capacity. Water quality and quantity have historically been issues in this area which has led to the proposed change and associated permit application (41S 30126464) from the Madison Aquifer.

CHANGE PROPOSAL

FINDINGS OF FACT

4. The Applicant is proposing to change the purpose of Statements of Claim 41S 1400-00 and 41S 102000-00 to mitigation in an effort to offset surface water depletions associated with permit application 41S 30126464, which will pump water for municipal use from the Madison Group Aquifer. The Madison Group Aquifer is deeper than the Kootenai Aquifer, but impacts from the wells have been predicted to accrue to the same surface water source. The Applicant plans to cease diversion from the well to mitigate the 93.9 AF requested under permit application 41S

30126464. For purposes of this proposed change, the point of diversion and place of use for the mitigation purpose will be the well.

CHANGE CRITERIA

5. The Department is authorized to approve a change if the applicant meets its burden to prove the applicable § 85-2-402, MCA, criteria by a preponderance of the evidence. Matter of Royston, 249 Mont. 425, 429, 816 P.2d 1054, 1057 (1991); Hohenlohe v. DNRC, 2010 MT 203, ¶¶ 33, 35, and 75, 357 Mont. 438, 240 P.3d 628 (an applicant's burden to prove change criteria by a preponderance of evidence is "more probably than not."); Town of Manhattan v. DNRC, 2012 MT 81, ¶8, 364 Mont. 450, 276 P.3d 920. Under this Preliminary Determination, the relevant change criteria in §85-2-402(2), MCA, are:

> (2) Except as provided in subsections (4) through (6), (15), (16), and (18) and, if applicable, subject to subsection (17), the department shall approve a change in appropriation right if the appropriator proves by a preponderance of evidence that the following criteria are met:
> (a) The proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued under part 3.
> (b) The proposed means of diversion, construction, and operation of the appropriation works are adequate, except for: (i) a change in appropriation right for instream flow pursuant to 85-2-320 or 85-2-436; (ii) a temporary change in appropriation right for instream flow pursuant to 85-2-408; or (iii) a change in appropriation right pursuant to 85-2-420 for mitigation or marketing for mitigation.
> (c) The proposed use of water is a beneficial use.
> (d) The applicant has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use or, if the proposed change involves a point of diversion, conveyance, or place of use on national forest system lands, the applicant has any written special use authorization required by federal law to occupy, use, or traverse national forest system lands for the purpose of diversion, impoundment, storage, transportation, withdrawal, use, or distribution of water. This subsection (2)(d) does not apply to: (i) a change in appropriation right for instream flow pursuant to 85-2-320 or 85-2-436; (ii) a temporary change in appropriation right for instream flow pursuant to 85-2-408; or (iii) a change in appropriation right pursuant to 85-2-420 for mitigation or marketing for mitigation.

6. The evaluation of a proposed change in appropriation does not adjudicate the underlying right(s). The Department's change process only addresses the water right holder's ability to make

a different use of that existing right. E.g., Hohenlohe, at ¶¶ 29-31; Town of Manhattan, at ¶8; *In the Matter of Application to Change Appropriation Water Right No.41F-31227 by T-L Irrigation Company* (DNRC Final Order 1991).

HISTORIC USE AND ADVERSE EFFECT

FINDINGS OF FACT - Historic Use

7. Both water rights proposed for change divert water from the same well (Artesian Well #1), which has a 17" bore hole, 12" steel casing, and total depth of 1,030 feet. Drilling of the well commenced in 1951 and it was completed in May of 1952. Two pumping test results were reported at the time of completion. A detailed test log documented a flow of 83 GPM with a pumping water level of 735 feet after five hours of pumping. The well log filed with the state reported a flow of 100 GPM. Per the Preliminary Engineering Report from 2002, the original pump installed was a 45 HP top-mounted, shaft-driven turbine pump. In the application materials, the Applicant states that the well was pumped at 100 GPM in 1960. The well served the Town of Stanford municipal water system in the E2 Section 17 and W2 Section 16, Township 16N, Range 12E, Judith Basin County.

8. Records for the water system were lost in a fire that burned down the City Hall in 1977, so a comparative analysis using two different methods of calculating average daily water use per capita (in gallons) to calculate historical use was provided by the Applicant. This analysis was completed as part of a Preliminary Engineering Report from 2002. The following methodology was used to determine the total historical use for the Town of Stanford so that historical use of the individual water rights proposed for change could be determined.

- Method #1: Calculating use based on Irrigation + Domestic Demand
    - Residences in 2002 = 264 residences. Population in 2002 = 454. Average lot has 5,000 sf of lawn area.
    - (264 residences * 5,000 sf lawn/residence * 1"/week * 1 ft / 12" * 1 week / 7 days * 7.48 gal/CF) = 117,500 GPD / 454 people = 259 gpcd summer
    - From 2002 PER, Table 2.1 – Water Usage Comparison Average Water Use (gpcd) - Stanford Winter Nov/Dec water usage = 128 gpcd, obtained from Water Resource Engineering, Fourth Edition, 1992.

- Average annual daily demand = [128 gpcd * 8 months + ((128 +259) * 4 months))] / 12 = 214 gpcd.

- Method #2: Calculating use based on using Equivalent Dwelling Unit (EDU)
  - Typical usage per dwelling unit is 250 to 350 gallons per day. This analysis is using 325 gpd/EDU for small system.
  - From 2002 PER, Table 2-4 Stanford Water Usage for Residential, Commercial and Institutional = 290 EDU
  - 325 gpd/EDU * 290 EDU = 94,250 gpd
  - Population 2002 = 454 people
  - 94,250 gpd /454 people = 208 gpcd

- Next, the methodology calculates an average gallon per capita per day value from Methods 1 & 2:
  - Average Daily Demand = (214 gpcd + 208 gpcd)/2 = **211 gpcd**

- Finally, a check was completed comparing these results to three other small towns in Montana which meter water use. The three other small towns used for the comparison are Ennis, Shelby, and Wilsall. The average daily water use per capita of these three towns was 210 gallons.
- The historical water distribution system for the town of Stanford consists of cast iron water pipes. The first mainlines were installed in 1928 and consisted of 2", 4", and 6" pipe. Cast iron is susceptible to corrosion. Hard water and water quality issues of the source aquifers that Stanford pumps from have reduced the life expectancy of the cast iron pipes and has created breakage and leakage issues throughout the system. Per the U.S. EPA 2010 Control and Mitigation of Drinking Water Losses in Distribution Systems, acceptable water loss for small drinking water systems is 25%. Due to the nature of the water system and water quality, the Applicant assumes an additional 25% loss added to the average daily demand of 211 gallons per capita.

- The 2002 PER calculated a current loss of 25 GPM on the system by looking at water use during the night hours.
- A previous leak detection survey was completed in 1988 and several leaks were found and repaired at that time.

- The maximum population of Stanford was recorded in 1960 at a total of 615 residents. Using the average daily demand of 211 GPCD and water loss rate of 25%, a theoretical maximum annual diversion of 181.8 AF is possible in 1960.
- A total of three wells were active in 1960 for the Stanford public water supply; Well #2 (which has since been replaced by Well #9 via a replacement well change), Well #5, and Artesian Well #1. This change is focused on use from Artesian Well #1 but use from the other wells must be taken into account to determine the volume of water pumped from Artesian Well #1. Water quality issues have led to decreased production from the wells as they age. Well #2 was 32 years old and Well #5 was 19 years old in 1960, and the Applicant calculates a loss of approximately 45% of their initial production by then. The annual volumes produced for each well were calculated using a 19 hr/day rate for Artesian Well #1 and 20 hr/day pump rates for Well #2 and Well #5. This is due to the Town's desire to keep the storage tank full at all times to provide adequate pressures and fire protection. This is a rate of less hours/day than the Town currently uses Well #5 and #9, which are used full-time due to changes in operation of the system and additional well loss.

  - Original Tower Well #2: 55% of 70 GPM = 38.5 GPM

    Volume: = 38.5 GPM * 60 min/hr * 20 hr/day * 365 day/yr

    = 16,863,000 gal/yr = 51.75 AF

  - Railroad Well #5: 55% of 40 GPM = 22 GPM

    Volume = 22 GPM * 60 min/hr * 20 hr/day * 365 day/yr

    = 9,636,000 gal/yr = 29.57 AF

  - Artesian Well #1 Volume = 74 GPM * 60 min/hr * 19 hr/day * 365 day/yr

    = 30,791,400 gal/yr = 94.50 AF

- Total historical diverted volume calculated from all three wells in 1960 = 175.82 AF, with 94.5 AF being produced by Artesian Well #1. This total historical diverted volume of 94.5 AF for Artesian Well #1 is 79% of the total claimed volume (119.37 AF) from the well. This percentage will be applied to each of the two water rights for the well to determine the historical diverted volume of each water right proposed for change.

9. Statement of Claim 41S 1400-00 was filed for 70 GPM up to 112.9 AF per year. Applying a use rate of 79% to the claimed volume of this water right, the total annual historical diverted volume is calculated to be 89.4 AF. Municipal water use for the Town of Stanford is considered by the Department to be 100% consumptive. Water is diverted from the Kootenai Aquifer and the wastewater collection system historically discharged water to a 6.4 surface-acre lagoon. This lagoon is visible on a 9/28/1971 USDA Aerial photo. Because the Kootenai Aquifer is so deep and depletions from pumping were determined to accrue in Arrow Creek per the Department's Depletion Report, there is no recharge to the Kootenai Aquifer or Arrow Creek associated with water use by the Town of Stanford.

10. Statement of Claim 41S 102000-00 was filed for 4 GPM up to 6.47 AF per year. Applying a use rate of 79% to the claimed volume of this water right, the total annual historical diverted volume is calculated to be 5.1 AF. Municipal water use for the Town of Stanford is considered by the Department to be 100% consumptive. Water is diverted from the Kootenai Aquifer and the wastewater collection system historically discharged water to a 6.4 surface acre lagoon. This lagoon is visible on a 9/28/1971 USDA Aerial photo. Because the Kootenai Aquifer is so deep and depletions from pumping were determined to accrue in Arrow Creek per the Department's Depletion Report, there is no recharge to the Kootenai Aquifer or Arrow Creek associated with water use by the Town of Stanford.

Table 3. Historical Use for water rights proposed for change.

WR Number	Historical Diverted Flow Rate (GPM	Historical Diverted Volume (AF)	Historical Consumed Volume (AF)
41S 1400-00	70	89.4	89.4
41S 102000-00	4	5.1	5.1
Total	74	94.5	94.5

FINDINGS OF FACT – Adverse Effect

11. Under the Applicant's change proposal, it will cease diversion of water from the well identified as Artesian Well #1 under Statements of Claim 41S 1400-00 and 41S 102000-00 to offset depletions associated with permit application 41S 30126464. The historical consumed amount of the two water rights proposed for mitigation is 94.5 AF and under the change proposal they will mitigate 93.9 AF.

12. As the water rights proposed for change have historically been 100% consumptive, there will be no adverse effect to other water users due to the proposed change as there will be no increase in the diverted or consumptive amount.

BENEFICIAL USE

FINDINGS OF FACT

13. Applicant proposes to change the purpose of its water use under Statements of Claim 41S 1400-00 and 102000-00 to mitigation to offset surface water depletions in Arrow Creek from use of permit application 41S 30126464. The Applicant will mitigate 93.9 AF per year at a constant rate of 58.2 GPM. This amount is supported by the amount requested for new beneficial use in permit application 41S 30126463 and matches the timing and amount of expected depletions. Under the mitigation purpose, the Applicant will cease diversion from the well (Artesian Well #1). Depletions to Arrow Creek from pumping under permit application 41S 30126464 are expected to be constant year-round at an average flow rate of 58.2 GPM up to 93.9 AF per year, Table 4.

Table 4. Difference between historical depletion associated with Change Application 41S 30126463 and new depletions from the proposed Permit Application 41S 30126464 that will accumulate in Arrow Creek.

Month	Historic Depletion (AF)	New Depletion (AF)	Difference Between Historic and New Depletions (AF)
January	8.0	8.0	0.0
February	7.2	7.2	0.0
March	8.0	8.0	0.0
April	7.7	7.7	0.0
May	8.0	8.0	0.0

June	7.7	7.7	0.0
July	8.0	8.0	0.0
August	8.0	8.0	0.0
September	7.7	7.7	0.0
October	8.0	8.0	0.0
November	7.7	7.7	0.0
December	8.0	8.0	0.0
Total	**93.9**	**93.9**	

14. The beneficial use of mitigation will be divided between the two water rights proposed for change by assigning volume in order of priority. Statement of Claim 41S 1400-00 will be assigned a mitigation volume of 89.4 AF at a flow rate of 55.4 GPM and Statement of Claim 41S 102000-00 will be assigned a mitigation volume of 4.5 AF at a flow rate of 2.8 GPM.

ADEQUATE DIVERSION

FINDINGS OF FACT

15. This application is to change the purpose of two Statements of Claim to mitigation. Pursuant to §85-2-402 (2)(b), MCA, the Applicant is not required to prove that the proposed means of diversion, construction, and operation of the appropriation works are adequate because this application involves a change in appropriation right pursuant to 85-2-420 for mitigation.

POSSESSORY INTEREST

FINDINGS OF FACT

16. This application is to change the purpose of two Statements of Claim to mitigation. Pursuant to §85-2-402(2)(d), MCA, the applicant is not required to prove that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use because this application involves a change in appropriation right pursuant to §85-2-420 MCA for mitigation.

CONCLUSIONS OF LAW

HISTORIC USE AND ADVERSE EFFECT

17. Montana's change statute codifies the fundamental principles of the Prior Appropriation Doctrine. Sections 85-2-401 and -402(1)(a), MCA, authorize changes to existing water rights, permits, and water reservations subject to the fundamental tenet of Montana water law that one may change only that to which he or she has the right based upon beneficial use. A change to an existing water right may not expand the consumptive use of the underlying right or remove the well-established limit of the appropriator's right to water actually taken and beneficially used. An increase in consumptive use constitutes a new appropriation and is subject to the new water use permit requirements of the MWUA. McDonald v. State, 220 Mont. 519, 530, 722 P.2d 598, 605 (1986)(beneficial use constitutes the basis, measure, and limit of a water right); Featherman v. Hennessy, 43 Mont. 310, 316-17, 115 P. 983, 986 (1911)(increased consumption associated with expanded use of underlying right amounted to new appropriation rather than change in use); Quigley v. McIntosh, 110 Mont. 495, 103 P.2d 1067, 1072-74 (1940)(appropriator may not expand a water right through the guise of a change – expanded use constitutes a new use with a new priority date junior to intervening water uses); Allen v. Petrick, 69 Mont. 373, 222 P. 451(1924)("quantity of water which may be claimed lawfully under a prior appropriation is limited to that quantity within the amount claimed which the appropriator has needed, and which within a reasonable time he has actually and economically applied to a beneficial use. . . . it may be said that the principle of beneficial use is the one of paramount importance . . . The appropriator does not own the water. He has a right of ownership in its use only"); Town of Manhattan, at ¶ 10 (an appropriator's right only attaches to the amount of water actually taken and beneficially applied); Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review,* Pg. 9 (2011)(the rule that one may change only that to which it has a right is a fundamental tenet of Montana water law and imperative to MWUA change provisions); In the Matter of Application to Change a Water Right No. 41I 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004).[1]

18. Sections 85-2-401(1) and -402(2)(a), MCA, codify the prior appropriation principles that

[1] DNRC decisions are available at:
http://www.dnrc.mt.gov/wrd/water_rts/hearing_info/hearing_orders/hearingorders.asp

Montana appropriators have a vested right to maintain surface and ground water conditions substantially as they existed at the time of their appropriation; subsequent appropriators may insist that prior appropriators confine their use to what was actually appropriated or necessary for their originally intended purpose of use; and, an appropriator may not change or alter its use in a manner that adversely affects another water user. Spokane Ranch & Water Co. v. Beatty, 37 Mont. 342, 96 P. 727, 731 (1908); Quigley, 110 Mont. at 505-11,103 P.2d at 1072-74; Matter of Royston, 249 Mont. at 429, 816 P.2d at 1057; Hohenlohe, at ¶¶43-45.[2]

19. The cornerstone of evaluating potential adverse effect to other appropriators is the determination of the "historic use" of the water right being changed. Town of Manhattan, at ¶10 (recognizing that the Department's obligation to ensure that change will not adversely affect other water rights requires analysis of the actual historic amount, pattern, and means of water use). A change applicant must prove the extent and pattern of use for the underlying right proposed for change through evidence of the historic diverted amount, consumed amount, place of use, pattern of use, and return flow because a statement of claim, permit, or decree may not include the beneficial use information necessary to evaluate the amount of water available for change or potential for adverse effect.[3] A comparative analysis of the historic use of the water right to the proposed change in use is necessary to prove the change will not result in expansion of the original right, or adversely affect water users who are entitled to rely upon maintenance of conditions on the source of supply for their water rights. Quigley, 103 P.2d at 1072-75 (it is necessary to ascertain historic use of a decreed water right to determine whether a change in use expands the underlying right to the detriment of other water user because a decree only provides a limited description of the right); Royston, 249 Mont. at 431-32, 816 P.2d at 1059-60 (record could not sustain a conclusion of no adverse effect because the applicant failed to provide the

[2] See also Holmstrom Land Co., Inc., v. Newlan Creek Water District,185 Mont. 409, 605 P.2d 1060 (1979); Lokowich v. Helena, 46 Mont. 575, 129 P. 1063(1913); Thompson v. Harvey, 164 Mont. 133, 519 P.2d 963 (1974)(plaintiff could not change his diversion to a point upstream of the defendants because of the injury resulting to the defendants); McIntosh v. Graveley, 159 Mont. 72, 495 P.2d 186 (1972)(appropriator was entitled to move his point of diversion downstream, so long as he installed measuring devices to ensure that he took no more than would have been available at his original point of diversion); Head v. Hale, 38 Mont. 302, 100 P. 222 (1909)(successors of the appropriator of water appropriated for placer mining purposes cannot so change its use as to deprive lower appropriators of their rights, already acquired, in the use of it for irrigating purposes); and, Gassert v. Noyes, 18 Mont. 216, 44 P. 959(1896)(change in place of use was unlawful where reduced the amount of water in the source of supply available which was subject to plaintiff's subsequent right).

[3]A claim only constitutes *prima facie* evidence for the purposes of the adjudication under § 85-2-221, MCA. The claim does not constitute *prima facie* evidence of historical use in a change proceeding under §85-2-402, MCA. For example, most water rights decreed for irrigation are not decreed with a volume and provide limited evidence of actual historic beneficial use. §85-2-234, MCA

Department with evidence of the historic diverted volume, consumption, and return flow); Hohenlohe, at ¶44-45; Town of Manhattan v. DNRC, Cause No. DV-09-872C, Montana Eighteenth Judicial District Court, *Order Re Petition for Judicial Review,* Pgs. 11-12 (proof of historic use is required even when the right has been decreed because the decreed flow rate or volume establishes the maximum appropriation that may be diverted, and may exceed the historical pattern of use, amount diverted or amount consumed through actual use); Matter of Application For Beneficial Water Use Permit By City of Bozeman, *Memorandum*, Pgs. 8-22 (Adopted by DNRC *Final Order* January 9,1985)(evidence of historic use must be compared to the proposed change in use to give effect to the implied limitations read into every decreed right that an appropriator has no right to expand his appropriation or change his use to the detriment of juniors).[4]

20. An applicant must also analyze the extent to which a proposed change may alter historic return flows for purposes of establishing that the proposed change will not result in adverse effect. The requisite return flow analysis reflects the fundamental tenant of Montana water law that once water leaves the control of the original appropriator, the original appropriator has no right to its use and the water is subject to appropriation by others. E.g., Hohenlohe, at ¶44; Rock Creek Ditch & Flume Co. v. Miller, 93 Mont. 248, 17 P.2d 1074, 1077 (1933); Newton v. Weiler, 87 Mont. 164, 286 P. 133(1930); Popham v. Holloron, 84 Mont. 442, 275 P. 1099, 1102 (1929); Galiger v.

[4] Other western states likewise rely upon the doctrine of historic use as a critical component in evaluating changes in appropriation rights for expansion and adverse effect: Pueblo West Metropolitan District v. Southeastern Colorado Water Conservancy District, 717 P.2d 955, 959 (Colo. 1986)("[O]nce an appropriator exercises his or her privilege to change a water right … the appropriator runs a real risk of requantification of the water right based on actual historical consumptive use. In such a change proceeding a junior water right … which had been strictly administered throughout its existence would, in all probability, be reduced to a lesser quantity because of the relatively limited actual historic use of the right."); Santa Fe Trail Ranches Property Owners Ass'n v. Simpson, 990 P.2d 46, 55 -57 (Colo.,1999); Farmers Reservoir and Irr. Co. v. City of Golden, 44 P.3d 241, 245 (Colo. 2002)("We [Colorado Supreme Court] have stated time and again that the need for security and predictability in the prior appropriation system dictates that holders of vested water rights are entitled to the continuation of stream conditions as they existed at the time they first made their appropriation); Application for Water Rights in Rio Grande County, 53 P.3d 1165, 1170 (Colo. 2002); Wyo. Stat. § 41-3-104 (When an owner of a water right wishes to change a water right … he shall file a petition requesting permission to make such a change …. The change … may be allowed provided that the quantity of water transferred … shall not exceed the amount of water historically diverted under the existing use, nor increase the historic rate of diversion under the existing use, nor increase the historic amount consumptively used under the existing use, nor decrease the historic amount of return flow, nor in any manner injure other existing lawful appropriators.); Basin Elec. Power Co-op. v. State Bd. of Control, 578 P.2d 557, 564 -566 (Wyo,1978) (a water right holder may not effect a change of use transferring more water than he had historically consumptively used; regardless of the lack of injury to other appropriators, the amount of water historically diverted under the existing use, the historic rate of diversion under the existing use, the historic amount consumptively used under the existing use, and the historic amount of return flow must be considered.)

McNulty, 80 Mont. 339, 260 P. 401 (1927); Head v. Hale, 38 Mont. 302, 100 P. 222 (1909); Spokane Ranch & Water Co., 37 Mont. at 351-52, 96 P. at 731; Hidden Hollow Ranch v. Fields, 2004 MT 153, 321 Mont. 505, 92 P.3d 1185; In the Matter of Application for Change Authorization No. G (W)028708-411 by Hedrich/Straugh/Ringer, DNRC Final Order (Dec. 13, 1991); In the Matter of Application for Change Authorization No. G(W)008323-G76l By Starkel/Koester, DNRC Final Order (Apr. 1, 1992); In the Matter of Application to Change a Water Right No. 41I 30002512 by Brewer Land Co, LLC, DNRC Proposal For Decision and Final Order (2004); Admin. R.M. 36.12.101(56)(Return flow - that part of a diverted flow which is not consumed by the appropriator and returns underground to its original source or another source of water - is not part of a water right and is subject to appropriation by subsequent water users).[5]

21. Although the level of analysis may vary, analysis of the extent to which a proposed change may alter the amount, location, or timing return flows is critical in order to prove that the proposed change will not adversely affect other appropriators who rely on those return flows as part of the source of supply for their water rights. Royston, 249 Mont. at 431, 816 P.2d at 1059-60; Hohenlohe, at ¶¶ 45-6 and 55-6; Spokane Ranch & Water Co., 37 Mont. at 351-52, 96 P. at 731. Noted Montana Water Law scholar Al Stone explained that the water right holder who seeks to change a water right is unlikely to receive the full amount claimed or historically used at the original place of use due to reliance upon return flows by other water users. Montana Water Law, Albert W. Stone, Pgs. 112-17 (State Bar of Montana 1994).

22. In Royston, the Montana Supreme Court confirmed that an applicant is required to prove lack of adverse effect through comparison of the proposed change to the historic use, historic consumption, and historic return flows of the original right. 249 Mont. at 431, 816 P.2d at 1059-60. More recently, the Montana Supreme Court explained the relationship between the fundamental principles of historic beneficial use, return flow, and the rights of subsequent appropriators as they relate to the adverse effect analysis in a change proceeding in the following manner:

> The question of adverse effect under §§ 85-2-402(2) and -408(3), MCA, implicates return flows. A change in the amount of return flow, or to the hydrogeologic pattern of return flow, has the potential to affect adversely downstream water rights. There

[5] The Montana Supreme Court recently recognized the fundamental nature of return flows to Montana's water sources in addressing whether the Mitchell Slough was a perennial flowing stream, given the large amount of irrigation return flow which feeds the stream. The Court acknowledged that the Mitchell's flows are fed by irrigation return flows available for appropriation. Bitterroot River Protective Ass'n, Inc. v. Bitterroot Conservation Dist. 2008 MT 377, ¶¶ 22, 31, 43, 346 Mont. 508, ¶¶ 22, 31,43, 198 P.3d 219, ¶¶ 22, 31,43(*citing* Hidden Hollow Ranch v. Fields, 2004 MT 153, 321 Mont. 505, 92 P.3d 1185).

> consequently exists an inextricable link between the "amount historically consumed" and the water that re-enters the stream as return flow. . . .
> An appropriator historically has been entitled to the greatest quantity of water he can put to use. The requirement that the use be both beneficial and reasonable, however, proscribes this tenet. This limitation springs from a fundamental tenet of western water law-that an appropriator has a right only to that amount of water historically put to beneficial use-developed in concert with the rationale that each subsequent appropriator "is entitled to have the water flow in the same manner as when he located," and the appropriator may insist that prior appropriators do not affect adversely his rights.
> This fundamental rule of Montana water law has dictated the Department's determinations in numerous prior change proceedings. The Department claims that historic consumptive use, as quantified in part by return flow analysis, represents a key element of proving historic beneficial use.
> We do not dispute this interrelationship between historic consumptive use, return flow, and the amount of water to which an appropriator is entitled as limited by his past beneficial use.

Hohenlohe, at ¶¶ 42-45 (internal citations omitted).

23. The Department's rules reflect the above fundamental principles of Montana water law and are designed to itemize the type evidence and analysis required for an applicant to meet its burden of proof. Admin.R.M. 36.12.1901 through 1903. These rules forth specific evidence and analysis required to establish the parameters of historic use of the water right being changed. Admin.R.M. 36.12.1901 and 1902. The rules also outline the analysis required to establish a lack of adverse effect based upon a comparison of historic use of the water rights being changed to the proposed use under the changed conditions along with evaluation of the potential impacts of the change on other water users caused by changes in the amount, timing, or location of historic diversions and return flows. Admin.R.M. 36.12.1901 and 1903.

24. Applicant seeks to change existing water rights represented by its Water Right Claims. The "existing water rights" in this case are those as they existed prior to July 1, 1973, because with limited exception, no changes could have been made to those rights after that date without the Department's approval. Analysis of adverse effect in a change to an "existing water right" requires evaluation of what the water right looked like and how it was exercised prior to July 1, 1973. In McDonald v. State, the Montana Supreme Court explained:

> The foregoing cases and many others serve to illustrate that what is preserved to owners of appropriated or decreed water rights by the provision of the 1972 Constitution is what the law has always contemplated in this state as the extent of a water right: such amount of water as, by pattern of use and means of use, the owners or their predecessors put to beneficial use. . . . the Water Use Act

> contemplates that all water rights, regardless of prior statements or claims as to amount, must nevertheless, to be recognized, pass the test of historical, unabandoned beneficial use. . . . To that extent only the 1972 constitutional recognition of water rights is effective and will be sustained.

220 Mont. at 529, 722 P.2d at 604; see also Matter of Clark Fork River Drainage Area, 254 Mont. 11, 17, 833 P.2d 1120 (1992).

25. Water Resources Surveys were authorized by the 1939 legislature. 1939 Mont. Laws Ch. 185, § 5. Since their completion, Water Resources Surveys have been invaluable evidence in water right disputes and have long been relied on by Montana courts. In re Adjudication of Existing Rights to Use of All Water in North End Subbasin of Bitterroot River Drainage Area in Ravalli and Missoula Counties, 295 Mont. 447, 453, 984 P.2d 151, 155 (1999)(Water Resources Survey used as evidence in adjudicating of water rights); Wareing v. Schreckendgust, 280 Mont. 196, 213, 930 P.2d 37, 47 (1996)(Water Resources Survey used as evidence in a prescriptive ditch easement case); Olsen v. McQueary, 212 Mont. 173, 180, 687 P.2d 712, 716 (1984) (judicial notice taken of Water Resources Survey in water right dispute concerning branches of a creek).

26. Based upon the Applicant's evidence of historic use, the Applicant has proven by a preponderance of the evidence the historic use of Water Right Claim No. 41S 1400-00 of 89.4 AF diverted volume and 70 GPM flow rate with a consumptive use of 89.4 AF. Based upon the Applicant's evidence of historic use, the Applicant has proven by a preponderance of the evidence the historic use of Water Right Claim No. 41S 102000-00 of 5.1 AF diverted volume and 4 GPM flow rate with a consumptive use of 5.1 AF. (FOF Nos. 7-10)

27. Based upon the Applicant's comparative analysis of historic water use and planned use under the proposed change, the Applicant has proven that the proposed change in appropriation right will not adversely affect the use of the existing water rights of other persons or other perfected or planned uses or developments for which a permit or certificate has been issued or for which a state water reservation has been issued. §85-2-402(2)(b), MCA. (FOF Nos. 10-12)

BENEFICIAL USE

28. A change applicant must prove by a preponderance of the evidence the proposed use is a beneficial use. §§85-2-102(4) and -402(2)(c), MCA. Beneficial use is and has always been the hallmark of a valid Montana water right: "[T]he amount actually needed for beneficial use within

the appropriation will be the basis, measure, and the limit of all water rights in Montana . . ." McDonald, 220 Mont. at 532, 722 P.2d at 606. The analysis of the beneficial use criterion is the same for change authorizations under §85-2-402, MCA, and new beneficial permits under §85-2-311, MCA. Admin.R.M. 36.12.1801. The amount of water that may be authorized for change is limited to the amount of water necessary to sustain the beneficial use. E.g., Bitterroot River Protective Association v. Siebel*, Order on Petition for Judicial Review*, Cause No. BDV-2002-519, Montana First Judicial District Court (2003) (*affirmed on other grounds*, 2005 MT 60, 326 Mont. 241, 108 P.3d 518); Worden v. Alexander, 108 Mont. 208, 90 P.2d 160 (1939); Allen v. Petrick, 69 Mont. 373, 222 P. 451(1924); Sitz Ranch v. DNRC, DV-10-13390, Montana Fifth Judicial District Court, *Order Affirming DNRC Decision*, Pg. 3 (2011)(citing BRPA v. Siebel, 2005 MT 60, and rejecting applicant's argument that it be allowed to appropriate 800 acre-feet when a typical year would require 200-300 acre-feet); Toohey v. Campbell, 24 Mont. 13, 60 P. 396 (1900)("The policy of the law is to prevent a person from acquiring exclusive control of a stream, or any part thereof, not for present and actual beneficial use, but for mere future speculative profit or advantage, without regard to existing or contemplated beneficial uses. He is restricted in the amount that he can appropriate to the quantity needed for such beneficial purposes."); §85-2-312(1)(a), MCA (DNRC is statutorily prohibited from issuing a permit for more water than can be beneficially used).

29. Applicant proposes to use water for mitigation which is a recognized beneficial use. §85-2-102(4), MCA. Applicant has proven by a preponderance of the evidence mitigation is a beneficial use and that 93.9 acre-feet of diverted volume and 58.2 GPM flow rate of water requested is the amount needed to sustain the beneficial use. §85-2-402(2)(c), MCA (FOF Nos. 13-14)

ADEQUATE MEANS OF DIVERSION

30. Pursuant to §85-2-402 (2)(b), MCA, the Applicant is not required to prove that the proposed means of diversion, construction, and operation of the appropriation works are adequate because this application involves a change in appropriation right pursuant to 85-2-420 for mitigation. (FOF No 15)

POSSESSORY INTEREST

31. Pursuant to §85-2-402(2)(d), MCA, the applicant is not required to prove that it has a possessory interest, or the written consent of the person with the possessory interest, in the property where the water is to be put to beneficial use because this application involves a change in appropriation right pursuant to §85-2-420 MCA for mitigation. (FOF No 16)

PRELIMINARY DETERMINATION

Subject to the terms and analysis in this Preliminary Determination Order, the Department preliminarily determines that this Application to Change Water Right No. 41S 30126463 should be granted subject to the following.

The Applicant may change the purpose of Statements of Claim 1400-00 and 102000-00 from Municipal use to Mitigation. The Point of Diversion and Place of use for the mitigation will be the well head located in the NENESE Section 17, Township 16N, Range 12E, Judith Basin County. The period of diversion and use for the mitigation will be January 1-December 31 annually. Under the Applicant's mitigation plan, no water will actually be diverted from the well. Instead, the well will be retired to execute a plan to mitigate depletions associated with the proposed pumping of permit application 41S 30126464. For Statement of Claim 1400-00, the amount authorized for mitigation is 55.4 GPM up to 89.4 AF per annum. For Statement of Claim 102000-00, the amount authorized for mitigation is 2.8 GPM up to 4.5 AF per annum.

NOTICE

This Department will provide public notice of this Application and the Department's Preliminary Determination to Grant pursuant to §85-2-307, MCA. The Department will set a deadline for objections to this Application pursuant to §§85-2-307, and -308, MCA. If this Application receives a valid objection, it will proceed to a contested case proceeding pursuant to Title 2 Chapter 4 Part 6, MCA, and §85-2-309, MCA. If this Application receives no valid objection or all valid objections are unconditionally withdrawn, the Department will grant this Application as herein approved. If this Application receives a valid objection(s) and the valid objection(s) are conditionally withdrawn, the Department will consider the proposed condition(s) and grant the Application with such conditions as the Department decides necessary to satisfy the applicable criteria. E.g., §§85-2-310, -312, MCA.

DATED this 11th day of June 2020.

Scott Irvin, Manager
Lewistown Regional Office
Department of Natural Resources
and Conservation

CERTIFICATE OF SERVICE

This certifies that a true and correct copy of the PRELIMINARY DETERMINATION TO GRANT was served upon all parties listed below on this 11th day of June 2020, by first class United States mail.

TOWN OF STANFORD
PO BOX 123
STANFORD, MT 59476

ROBERT PECCIA AND ASSOCIATES
%KAELA MURPHY
PO BOX 5653
HELENA, MT 59601

_____ _____

NAME DATE